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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/724,858	12/01/2003	Jin-Ho Choi	25502/81101	2158

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EXAMINER

STERRETT, JEFFREY L

ART UNIT

PAPER NUMBER

2838

DATE MAILED: 09/12/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/724,858	<b>Applicant(s)</b> CHOI ET AL.	
	<b>Examiner</b> Jeffrey L. Sterrett	<b>Art Unit</b> 2838	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**.      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 8 and 11-14 is/are allowed.
- 6) ☒ Claim(s) 1 and 7 is/are rejected.
- 7) ☒ Claim(s) 2-6, 9 and 10 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 01 December 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All    b) ☐ Some \*    c) ☒ None of:
- ☒ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |  |
|--|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)            |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>12/1/03</u> . | 6) <input type="checkbox"/> Other: ____  |

1. Acknowledgment is made of applicant's claim for foreign priority based on applications filed in Korea on December 18, 2002 and October 14, 2003. It is noted, however, that applicant has not filed a certified copies of the Korean applications as required by 35 U.S.C. 119(b).
2. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the transistors connected as recited by claims 9 and 10 (see claim objections below) must be shown or the features canceled from the claims. No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

3. Claims 5, 6, 9, and 10 are objected to because of the following informalities.

Claims 5 and 6 are confusing and misleading since in lines 3-5 of claim 5 the cathode and the anode of the first diode are seemingly recited as both connected to the feedback terminal. It is suggested that "and an anode" be deleted and "are" be changed to –is- in line 3, "an" be deleted and "anode" be changed to –anodes- in line 4, and the beginning of line 5 be changed to –first and second diodes are connected, and -.

Claim 9 is confusing and misleading since the correct circuit orientation of the first and second diodes is unclear – the current recitation seems to imply anti-parallel of the diodes instead of a series connection of diodes with opposing forward directions. It is suggested that the intended orientation of the first and second diodes instead be recited by referring to the connection of the anodes and cathodes.

Claim 9 is also incorrect and confusing since it seems applicant is unclear which terminal of a transistor is the emitter and which terminal is the collector. By standard convention, the emitter of a bipolar transistor is the terminal shown with the arrow head (whether the arrow head points towards or away from the base region only indicates the type, PNP or NPN, of the transistor) and the terminal without the arrow head is the collector. Additionally the base of the first transistor 702 would properly be described as connected to the cathode of the second diode 706 NOT the anode of the first diode 704.

Claim 10 is similarly incorrect and confusing in properly indentifying which terminal of a transistor is the emitter and which terminal is the collector.

Claim 10 is also vague and indefinite since in line 4 "second static current source" lacks proper antecedent basis.

Appropriate correction is required.

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

5. Claims 1 and 7 are rejected under 35 U.S.C. 102(a) as being antipated by Koike (US 6,519,165).

Koike discloses a switching power supply control module comprising a voltage set-up unit (essentially 9 and 11) providing first and second voltages in response to changes in a feedback voltage (Vf) and a switching control unit (essentially 31, 33, 34, and 35) to turn ON and OFF a switching device (3) of the switching power supply responsive to the first and second voltages.

6. Claims 2-4 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

7. Claims 5 and 6 would be allowable if rewritten to overcome the objections set forth above in this Office action and to include all of the limitations of the base claim and any intervening claims.

8. Claims 8 and 11-14 are allowed.

9. Claims 9 and 10 would be allowable if rewritten or amended to overcome the objections set forth above in this Office action.

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10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Huh et al (US 6,252,783), Balakrishnan (US 6,304,462), Yamada (US 6,445,598), Koike et al (US 6,515,876), Hong et al (US 6,646,894), Yang et al (US 6,839,247), and Yamada et al (US 6,842,350) are cited to show switching power supply control modules old and known in the art at the time of the invention.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jeffrey L. Sterrett whose telephone number is (571) 272-2085. The examiner can normally be reached on Monday-Thursday & 8:00am-5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Sherry can be reached on (571) 272-2084. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Jeffrey L. Sterrett  
Primary Examiner  
Art Unit 2838

